

RECEIVED  
CENTRAL FAX CENTER  
APR 11 2007

**Amendments to the Claims:**

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application. Material to be inserted is in **bold and underline**, and material to be deleted is in ~~strikeout~~ and/or in ~~[[double brackets]]~~ if the deletion would be difficult to see.

**LISTING OF CLAIMS:**

1 – 8. (Cancelled)

9. (Previously presented) Method for operating an engine with a first set of cylinders and a second set of cylinders, the method comprising:

operating the first set of cylinders combusting a lean or stoichiometric air-fuel mixture and operating the second set of cylinders with substantially no injected fuel while inducting air; and

transitioning to combusting a lean air-fuel mixture in said second set of cylinders.

10. (Previously presented) The method of claim 9 wherein after said transition, both said first and second set of cylinders are operated to combust a lean air-fuel mixture.

11. (Previously presented) The method of claim 10 wherein said transition is requested based on a desired engine output.

12. (Previously presented) The method of claim 11 wherein said desired engine output is based on a request from an operator of a vehicle coupled to the engine.

13. (Previously presented) The method of claim 12 wherein said desired engine output is a desired engine torque.

14. (Previously presented) The method of claim 13 wherein said desired engine output represents an increase in said desired engine torque.

15. (Currently amended) A method for operating an engine, the method comprising:

in response to a decrease in requested engine output, operating a first group of cylinders without injected fuel and a second group of ~~set-group-of~~ cylinders to combust a lean air-fuel mixture;

transitioning to combusting a lean air-fuel mixture in said first group of cylinders;

mixing gasses exhaust from the first and second cylinders; and

treating the mixed exhaust gasses in an emission control device capable of storing NOx in excess oxygen conditions.

16. (Previously presented) The method of claim 15 wherein said requested engine output is a requested engine output torque.

17. (Previously presented) The method of claim 16 wherein said requested engine output represents a decrease in said desired engine torque.

18. (Previously presented) A method for controlling an engine having at least a first and second group of cylinders, comprising:

operating the engine in a first mode wherein the first cylinder group operates with air and substantially no injected fuel and the second cylinder group operates to combust air and injected fuel; and

transitioning the engine to operating in a second mode wherein both the first cylinder group and the second cylinder group operate to combust air and injected fuel, combustion in both said first and second cylinder group being lean of stoichiometry.

19. (Previously presented) The method recited in claim 18 wherein combustion in said second cylinder group in said first mode is near stoichiometric.

20. (Previously presented) The method recited in claim 19 wherein said transition is performed in response to a request to increase engine torque.

21. (Presently presented) A method for operating an engine with variable valve operation, the engine having a first group of cylinders and a second group of cylinders, the method comprising:

in response to a decrease in requested engine output, operating the first group of cylinders without injected fuel and the second set of cylinders to combust a lean air-fuel mixture;

adjusting variable valve operation of the first group of cylinders differently from variable valve operation of the second group of cylinders;

mixing gasses exhaust from the first and second cylinders; and

treating the mixed exhaust gasses in an emission control device capable of storing NOx in excess oxygen conditions.

22. (Currently amended) A system comprising:

an engine having variable valve operation, the engine having a first group of cylinders and a second group of cylinders; and

a controller for operating said first group of cylinders with air and substantially no injected fuel, and operating said second group of cylinders to combust a mixture of air and injected fuel, wherein the controller further adjusts valve operation of the first group of cylinders differently from valve operation of the second group of cylinders.

23. (Previously presented) The system of claim 22 wherein said variable valve operation is variable cam timing.

24. (Currently amended) **A system comprising:**  
**an engine having variable valve operation, the engine having a first**  
**group of cylinders and a second group of cylinders; and**  
**a controller for operating said first group of cylinders with air and**  
**substantially no injected fuel, and operating said second group of cylinders**  
**to combust a mixture of air and injected fuel.** ~~The system of claim 23 wherein~~  
said mixture is lean of stoichiometry.

25. (Cancelled)

26. (New) A system comprising:  
an engine having variable valve operation, the engine having a first group  
of cylinders and a second group of cylinders;  
an emission control device coupled in an exhaust of the engine, the  
emission control device including a three-way catalyst, and  
a controller for operating said first group of cylinders with air and  
substantially no injected fuel, and operating said second group of cylinders to  
combust a mixture of air and injected fuel